

Unit 3 Quiz Study Guide: Periodic Table

1. What is a triad? Provide an example of a possible triad.
2. Describe the Law of Octaves
3. How did Mendeleev arrange the elements in his periodic table?
4. How is the current periodic table arranged? What are columns called? What are rows called?
5. What do elements in the same row have in common?

6. Describe the octet rule. Provide 2 examples of the octet rule.

7. Provide alternate names for the following families:

IA –

IIA –

IIIA –

IVIA –

B Block –

8. What is the trend for atomic radius? **Explain why this is the trend.**

9. What is the trend for I.E.? **Explain why this is the trend.**

10. What is the trend for electron affinity? **Explain why this is the trend.**

11. Which element has a larger atomic radius?

a) Mg or Cl

b) K or Ca

c) Ca or Sr

d) Si or Ge

12. Which element has a larger Ionization Energy?

a) C or O

b) N or P

c) Mg or Sr

d) P or Cl

13. Which element has a larger electron affinity?

a) N or F

b) O or S

c) Ba or Mg

d) Cl or Br

14. Which element is most related to:

a) Si

b) O

c) Ca

d) Na

e) Br

f) Ar

g) N

h) C

15. Provide one characteristic and one use for each family:

Hydrogen:

IA:

IIA:

IIIA:

IVA:

VA:

VIA:

VIIA:

VIIIA:

Transition Metals:

Lanthanides and Actinides:

16. Provide the Lewis Dot Diagram for the following:

a) B

b) F

c) N

d) Si

e) S

f) Kr

g) H

h) Ne

i) C

j) O

